

Work Order ID 82277

82277

Page 1

March-27-12 4:12:57 PM

Item ID: D2891-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: 2.25 Support

Stop ***NS2***

Start Date: 27/03/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/03/12

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2891	B								

100

100

HAAS I

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine as per Folio FA046
2-Deburr

0.00

0.00

OK
F.K. 12/04/04

20

φ

56

12/04/03

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

OK
F.K. 12/04/04

20

φ

56

12/04/03

120

120

QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00

0.00

B.A. 12/04/08

20

φ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 82277

82277

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March-27-12 4:12:57 PM

Item ID: D2891-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: 2.25 Support
 Start Date: 27/03/2012 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 04/05/2012 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
HandFXtube	Memo	0.00							
Hand Finishing Crosstubes	Per note 8 on page 1 of dwg D2891, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24H of cure time.								
140	QC3- Inspect Part Finish	0.00							
140									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: <u>L652</u>	0.00							
170									
Packaging	Memo	0.00							
Packaging									

12 - 4 - 9 (20)

(20) 12-04-10

12 - 4 - 10 (20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 82277***82277***

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March-27-12 4:12:57 PM

Item ID: D2891-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: 2.25 Support

Start Date: 27/03/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

12/4/10
R12-04-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-27-12 4:13:01 PM

Page 1

Work Order ID: 82277

82277

Parent Item: D2891-1

D2891-1

Parent Item Name: 2.25 Support

Start Date: 27/03/2012

Required Date: 04/05/2012

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP C02.11.26Added P/OKJ

IPP D 08.03.19 Re-format EC verified: DD

IPP Rev:E

11.08.04 as per dwg rev.B DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK076		Manufactured	No			110	Each	13.0000	0.5	10			

DSK076

D2891-1 TURNING DETAIL

56

1260403

Location

Loc Qty

Loc Code

MAT

-10

MAT050

10

MAT060

13

77192

3

81766

10

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NOTES:

1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRc)
(REF DART SPEC. D6104)

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ± 0.010) UNLESS OTHERWISE NOTED

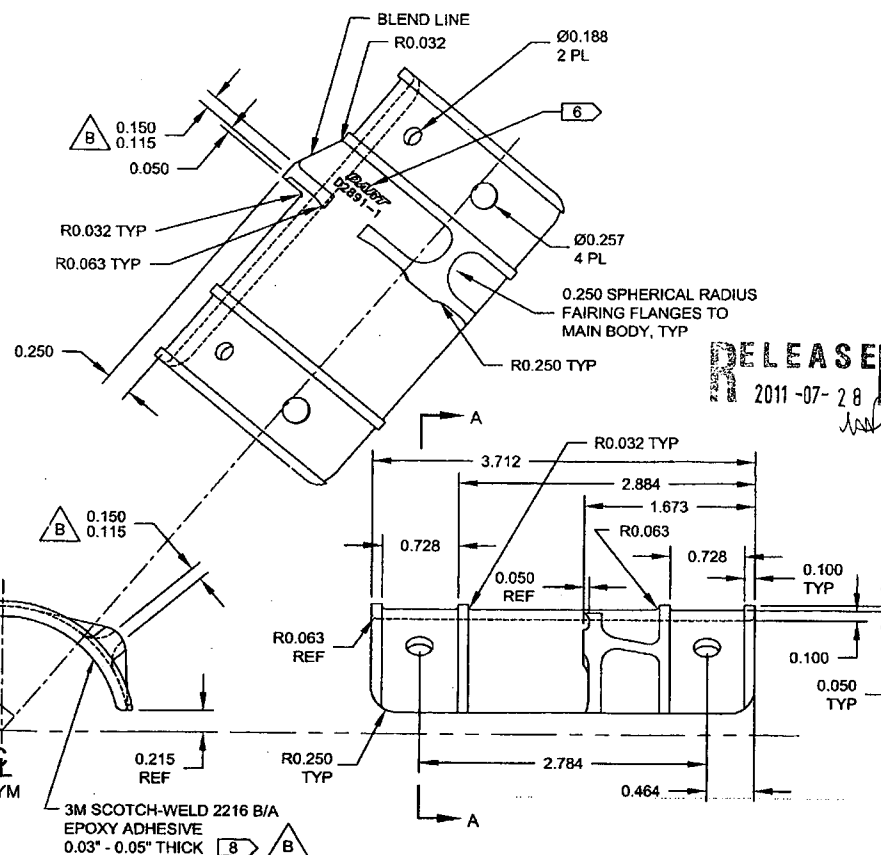
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

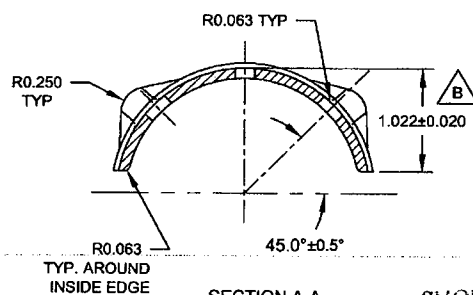
6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP, PER DART QSI 044 6.3.

7) WEIGHT: 0.38 lb

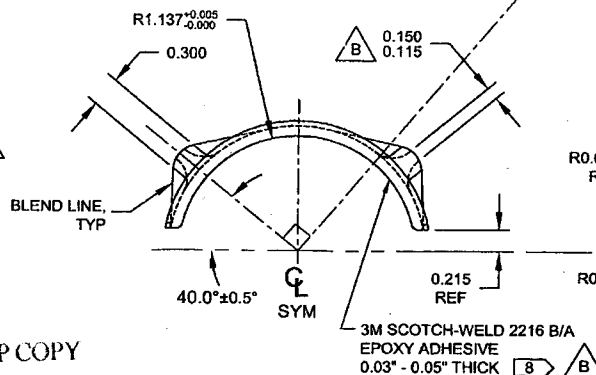
8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.



RELEASED
2011-07-28



SECTION A-A



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 82277 MLJ
12/03/27

D2891-1 SUPPORT

B	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION, UPDATE TOLERANCE (ZN D4-1, B4-1, B6-1)	CP	11.07.15
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D2891 REV. B SHEET 1 OF 1 TITLE: Ø2.250 SUPPORT SCALE: NTS COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE DART AEROSPACE LTD. PATENT AND TRADE SECRET PROTECTION.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	82277
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.249	.249	.249	.249	.249
AC	0.115	0.150		.126	.126	.126	.126	.126
AD	0.040	0.060		.051	.051	.051	.051	.051
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.144	.144	.144	.144	.144
AI	0.454	0.474		.467	.467	.467	.467	.467
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.040	1.040	1.039	1.040	1.040
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.258	.258	.258	.258	.258
AO	1.663	1.683		1.677	1.677	1.677	1.677	1.677
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: <i>BC</i>	Date: 12/04/03
Audited by: <i>AK</i> 12/04/08	Date: 12/04/03
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	<i>AK</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	82277
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	27	38	49	510
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.250	.251	.250	.250	.250
AC	0.115	0.150		.126	.126	.126	.127	.127
AD	0.040	0.060		.050	.050	.049	.050	.050
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.141	.141	.141	.141	.141
AI	0.454	0.474		.464	.464	.464	.464	.464
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.039	1.038	1.039	1.038	1.038
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.258	.258	.258	.258	.258
AO	1.663	1.683		1.677	1.675	1.675	1.675	1.675
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: <u>BF / P.K. 12/04/04</u>	Date: <u>12/04/05</u>
Audited by: <u>BF D.A. 12/04/08</u>	Date: <u>12/04/05</u>
Prototype Approval: _____	Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	82277
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	13	14	15
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.250	.250	.250	.250	.249
AC	0.115	0.150		.126	.126	.126	.126	.126
AD	0.040	0.060		.050	.050	.050	.050	.050
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.141	.141	.141	.141	.141
AI	0.454	0.474		.462	.464	.464	.462	.464
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.038	1.039	1.040	1.038	1.035
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.258	.258	.258	.258	.258
AO	1.663	1.683		1.672	1.676	1.676	1.674	1.675
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: EK / *[Signature]* Date: 12/04/04

Audited by: B.A. Date: 12/04/08

Prototype Approval: Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	82277
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16 X	17 A	18 A	19 X	20 X
HAAS Section								
AA	0.188	0.193		.188	.188	.188	.188	.188
AB	0.240	0.260		.250	.250	.250	.250	.250
AC	0.115	0.150		.127	.126	.126	.126	.126
AD	0.040	0.060		.050	.050	.050	.050	.050
AE	0.010	0.020		.010	.010	.010	.010	.010
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.141	.141	.141	.141	.141
AI	0.454	0.474		.462	.462	.462	.460	.464
AJ	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.037	1.038	1.038	1.038	1.039
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.258	.258	.258	.258	.258
AO	1.663	1.683		1.676	1.678	1.674	1.675	1.677
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: FK [Signature]	Date: 12/04/04
Audited by: B.A	Date: 12/04/08
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM [Signature]	[Signature]